

8. Abbās ibn Firnās & Al-Dīnawarī.

Abbās ibn Firnās.

Introduction:

Abbās ibn Firnās (810–887 AD) was a Muslim polymath, inventor, engineer, poet, and early aviation pioneer from Al-Andalus (Islamic Spain). He is most famous for attempting one of the earliest known human flights.

Full name, parent name:

His full name was Abbās Abū al-Qāsim ibn Firnās ibn Wardūs al-Takrūnī. Little is known about his parents, but he belonged to a respected Berber family.

Early life & background:

He was born in 810 AD in Ronda, Al-Andalus (in the province of Málaga, Spain), during the rule of the Umayyad Emirate of Córdoba. He grew up in a society that valued science, poetry, and innovation, which encouraged his curiosity.

Personality:

Abbās ibn Firnās was known for his creativity, courage, and love of experiments. He was deeply religious and a Sunni Muslim, most likely connected with the Maliki sect (maslak), since it was the dominant maslak (sect) in Al-Andalus. His personality was a blend of scientific curiosity and poetic sensitivity.

In which caliphate:

He lived during the Umayyad Emirate of Córdoba, which was a center of Islamic culture, science, and art in medieval Spain.

His teacher; education & influences:

Details of his direct teachers are unclear, but he was educated in Córdoba, the intellectual hub of Al-Andalus. He was influenced by Greek scientific works, Islamic scholars, and the cultural environment of Córdoba.

Career & historical context:

Ibn Firnās was a court scholar and inventor in Córdoba, where he entertained rulers with his scientific experiments and poetry. He studied astronomy, mechanics, music, and glass-making. His career reflects the flowering of science in Islamic Spain during the 9th century.

Major work/books:

Ibn Firnās is most famous for his flight (flying) experiment, where he built a glider-like device and successfully flew a short distance before crash landing. He also worked on making clear glass from sand, created lenses for reading, and improved water clocks. He studied astronomy and designed a planetarium-like device showing stars and planets. Although he did not leave books, his inventions and experiments became legendary.

Contribution in modern science:

He is remembered as one of the earliest pioneers of aviation. His attempt at flying inspired later inventors. His work in glass-making and optics helped prepare the way for the development of lenses and spectacles in Europe. He contributed to the early history of engineering and experimental science.

Technic & thoughts:

Ibn Firnās believed in learning through experimentation. He combined observation, creativity, and practical application. He was not afraid of failure and saw experiments as a path to discovery.

Death & legacy:

He died in 887 AD in Córdoba. Though his flight ended in a crash, he survived and reflected on his mistake of not adding a tail for balance. His legacy as an inventor, aviator, and thinker lives on. A crater on the Moon and an airport in Baghdad are named after him.

Critical/critics perspectives:

Some historians doubt the full details of his flight experiment, but most agree he made genuine contributions to early aviation and science. Critics say legends may have exaggerated his achievements, but his reputation as a pioneer remains strong.

Conclusion:

Abbās ibn Firnās was a Sunni Muslim polymath, most likely Maliki, whose daring experiments and inventions placed him centuries ahead of his time. He symbolizes the spirit of curiosity and innovation in the Islamic Golden Age, especially in Al-Andalus.

Abū Ḥanīfa Aḥmad ibn Dāwūd al-Dīnawarī

Introduction:

Abū Ḥanīfa Aḥmad ibn Dāwūd al-Dīnawarī (815–896 AD) was a famous Muslim scholar, botanist, astronomer, mathematician, historian, and linguist. He is often remembered as one of the earliest scientists to write about plants in detail and as an important figure of the Islamic Golden Age.

Full name, parent name:

His full name was Abū Ḥanīfa Aḥmad ibn Dāwūd al-Dīnawarī. His father's name was Dāwūd, but little is known about his family background.

Early life & background:

He was born around 815 AD in Dīnawar (a town in western Iran). Growing up in Persia, he was exposed to both Arabic and Persian cultures. His environment gave him a love for languages, nature, and science. Later, he traveled to study in major Islamic centers of learning.

Personality:

Al-Dīnawarī was known for his curiosity, sharp mind, and passion for natural sciences. He was also deeply religious and followed Islam faithfully. Most historians

describe him as a Sunni Muslim, though it is not clear which sect (maslak) he followed. He is not associated with Shia traditions.

In which caliphate:

He lived during the Abbasid Caliphate, a period of major scientific progress, translations of Greek works, and cultural development.

His teacher; education & influences:

He studied under many scholars in Kufa, Basra, and Baghdad. He was influenced by Greek science, especially works on astronomy, mathematics and combined them with Islamic scholarship. He also studied Arabic language and grammar with leading scholars of his time.

Career & historical context:

Al-Dīnawarī became a respected scholar and scientist, writing on a wide range of subjects. His career took place during the height of Abbasid intellectual life, when scholars were encouraged to research in mathematics, astronomy, medicine and natural sciences.

Major work/books:

His most famous work is 'Kitāb al-Nabāt' (The Book of Plants), one of the earliest detailed books on botany. In it he described around 637 plants, their growth, and their medical uses.

He also wrote works on astronomy, such as 'Book of the Stars,' and a universal history called 'Kitāb al-Akhbār al-Ṭiwāl' (The Book of Long Accounts). He contributed to mathematics with works on arithmetic and geometry, and to linguistics with works on Arabic grammar.

Contribution in modern science:

Al-Dīnawarī is often called the 'father of Arabic botany.' His knowledge about plants influenced later Islamic and European scientists. His astronomy and mathematics also laid foundations for later developments. His historical writings preserved early Islamic and Persian history.

Technic & thoughts:

He combined observation with earlier knowledge, always seeking to test information with real examples. His method was both descriptive and analytical. He believed that studying nature was a way to understand creation.

Death & legacy:

He died around 896 AD in Dīnawar. His works continued to be studied for centuries. His 'Book of Plants' especially made a lasting impact on botany in the Muslim world and beyond.

Critical/critics perspectives:

Some of his works are lost, and critics say later historians gave him less attention compared to other scholars. Still, modern researchers recognize his pioneering role in botany and his wide knowledge across disciplines.

Conclusion:

Abū Ḥanīfa al-Dīnawarī was a Sunni Muslim polymath whose contributions to botany, astronomy, mathematics, and history make him one of the great scientists of the Islamic Golden Age. His balanced method of observation and analysis left a legacy of knowledge for both the Muslim world and Europe.